

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 May 2005 (12.05.2005)

PCT

(10) International Publication Number
WO 2005/043245 A3

(51) International Patent Classification⁷: **G03F 7/42**,
C11D 11/00, 7/08, 7/10

(21) International Application Number:
PCT/US2004/034541

(22) International Filing Date: 20 October 2004 (20.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/515,234 29 October 2003 (29.10.2003) US

(71) Applicant (for all designated States except US):
MALLINCKRODT BAKER INC. [US/US]; 675
McDonnell Boulevard, P.O. Box 5840, St. Louis, MO
63134 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SKEE, David, C.**
[US/US]; 3192 Rambeau Road, Bethlehem, PA 18020
(US).

(74) Agents: **REBMAN, Christine, M. et al.**; Mallinckrodt
Inc., 675 McDonnell Boulevard, P.O. Box 5840, St. Louis,
MO 63134 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
25 August 2005

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **ALKALINE, POST PLASMA ETCH/ASH RESIDUE REMOVERS AND PHOTORESIST STRIPPING COMPOSI-
TIONS CONTAINING METAL-HALIDE CORROSION INHIBITORS**

(57) Abstract: The invention provides alkaline compositions useful in the microelectronics industry for stripping or cleaning semi-
conductor wafer substrates by removing photoresist residues and other unwanted contaminants. The compositions contain (a) one or
more bases and (b) one or more metal corrosion inhibiting metal halides of the formula: W_zMX_y , where M is a metal selected from
the group Si, Ge, Sn, Pt, P, B, Au, Ir, Os, Cr, Ti, Zr, Rh, Ru, and Sb; X is a halide selected from F, Cl, Br and I; W is selected from
H, to an alkali or alkaline earth metal, and a metal ion-free hydroxide base moiety; y is a numeral of from 4 to 6 depending on the
metal halide; and z is a numeral of 1, 2 or 3.



WO 2005/043245 A3